

Agency Response to the 2006 Avulsion of the Suncook River in Epsom, NH

Last Updated: July 28, 2011

2006

1. Immediately following avulsion, DES (NHGS staff) conduct baseline assessment of avulsion area. ***\$8,000 of staff time***
2. June 2006, DES submits proposal to FEMA for \$200,000 of disaster funding to assess alternatives for avulsion area. ***This request was denied.***
3. On June 16, 2006, DES submits proposal to the U.S. Army Corps of Engineers (USACOE) seeking federal funding assistance for the Suncook River in the form of an Aquatic Ecosystem Restoration Program grant. ***This request was denied in August due to insufficient funding from the USACOE.***
4. On June 21, 2006, DES and the USGS submit funding proposals to FEMA for two projects:
 - a. Sediment Transport Analyses and Modeling - \$190,240
 - b. Flood Recovery Mapping - \$89,840***Both proposals were denied by FEMA.***
5. Steve Couture (RMPP) and Steve Landry (WAS) attend Board of Selectmen Meeting to discuss potential strategies for Town of Epsom to study the ongoing impacts from the avulsion and to develop strategies for river stabilization and/or restoration
6. A recommendation is made from DES to Town of Epsom to pursue Section 319 grant funding from DES. Steve Couture and Steve Landry provide assistance to Town of Epsom for the completion of a Section 319 application.

2007

7. On July 18, 2007 Governor & Council approve a Section 319 Grant Agreement between DES and the Town of Epsom in the amount of \$40,000.
 - a. ***\$24,000 – Section 319 funding from DES***
 - b. ***\$16,000 – Town of Epsom***

This project generated geomorphic-based assessments of the historical and newly formed channels of the river in the vicinity of the avulsion, and provided river management/restoration options. The outcome of the project was a findings report (the *VHB Study*) that provided recommendations based upon the geomorphic assessments along with budget estimates for permitting and implementing each option. It was understood that this project was to be the first phase in a river restoration/management program for the affected reaches of the Suncook River.

8. In August of 2007 DES, DoS and USGS submit funding proposals to FEMA for two projects:
 - a. Sediment Transport Analyses and Modeling
 - b. Flood Recovery Mapping***Both proposals were funded by FEMA. \$550,000***
9. In September 2007, DES and DoS provide funding and match for 2' contour aerial photography for the avulsion area. This data was critical for the VHB study and the USGS flood recovery mapping. ***\$134,424 EMPG (DoS –FEMA grant), \$134, 424 DES soft match***
10. November 4, 2007 DES provides match for USGS Stream Gage installed on Suncook River in Chichester and added as NWS Northeast River Forecast Point -***\$13,800 USGS (under Cooperative Agreement with DES), \$23,989 DES soft match***

2008

11. In February 2008, DES and DoS provide funding and match for 4' contour aerial photography for the Suncook River mainstem from the Chichester/Epsom town line to the confluence with the Merrimack River. This data was critical for the USGS flood recovery mapping and sediment transport modeling. ***\$37,360 EMPG (DoS –FEMA grant), \$37,360 DES soft match.***

12. In May 2008 VHB publishes “Geomorphology-based Restoration Alternatives for the Suncook River, Epsom, NH”.
13. DES personnel organize and convene first meeting of Suncook River Task Force to seek support to apply for Pre-Disaster Mitigation funding for implementation of Alternative #3 from the VHB study. Representatives from the Towns of Epsom, Pembroke, and Allenstown support this approach.
14. In October 2008, DES personnel assist the Town of Epsom submit a \$100,000 State Conservation Commission Moose Plate application for the floodplain planting component of Alternative #3. .
15. DES personnel (Steve Couture and Steve Landry) develop Pre-Disaster Mitigation (PDM) Grant application on behalf of the Town of Epsom (applicant) for FEMA funding consideration. With the assistance of Dick Verville from DOS, the Town of Epsom generates the top ranked proposal in NH for submittal to FEMA in December 2008.
16. The PDM grant requested \$3.8 million

2009

17. *Spring 2009 the Town of Epsom was awarded a \$100,000 State Conservation grant for the floodplain planting component of Alternative #3.*
18. *In October 2009, the Town of Epsom \$100,000 State Conservation grant is withdrawn due to lack of matching funds.*
19. In April, the Town of Epsom is notified that their application for *\$3.8 million PDM funding under FEMA was denied*. The application did not have a high Benefit Cost Analysis score and the required non-federal match of nearly \$1 million was not secured at the time the application was made to FEMA.
20. In February, the Town of Epsom submitted an application for \$3.75 million under the ARRA CWSRF stormwater/NPS stimulus program.
21. In July, the Town of Epsom *declined \$3.75 million under the ARRA CWSRF stormwater/NPS stimulus program as a 50% match requirement was unattainable.*
22. In December, DES personnel (Steve Landry) submitted a revised PDM application for funding consideration by FEMA.
23. The scope of work covered under the PDM grant application in 2009 was reduced by eliminating the design and permitting tasks to yield a grant request of \$2.4 million.
24. DES facilitates the second Suncook River Task Force meeting in Epsom on November 4th.
25. DES submits an appropriation request to the Office of Senator Jeanne Shaheen for consideration during FY2010. *The \$3,750,000 request is not included in the FY2010 Appropriations Bill.*
26. DES submits an appropriation request to the Office of Representative Hodes for consideration during FY2010. *The \$3,750,000 request is not included in the FY2010 Appropriations Bill.*

2010

27. In April of 2010, the Town of Epsom is notified by FEMA that their application for *\$2.4 million PDM funding was denied*. The Town of Epsom sends a letter to the office of Governor Lynch expressing their frustration for the lack of funding from federal and state sources.
28. On June 29th, DES and DoS present Capital Improvement Project Requests specific to the Suncook River:
 - a. **Priority #3 – Dam Repairs (Buck Street Dam, Pembroke)**
 - i. DES intends to remove the Buck Street West Dam based on the balance of benefit and maintenance/repair costs over time, flooding issues upstream in and along the Suncook River, and an interest in river restoration = **\$200,000**.
 - b. **Priority #8 – Suncook River Infrastructure Protection Project:**
 - i. Construction of grade control structures to protect the Route 4 and Black Hall Road Bridges in the vicinity of the avulsion = **\$850,000**
 - ii. Geomorphic assessment and Fluvial Erosion Hazard zone delineation to identify properties most vulnerable to continued river channel adjustments in response to the avulsion = **\$185,000**

- c. **Priority #9 – Property Acquisition in the Suncook River Fluvial Erosion Hazard Zone**
 - i. These funds will act to leverage the non-federal cost share for federal mitigation grants under the FEMA Unified Hazard Mitigation Assistance Program to allow homeowners the option for acquisition, demolition, and relocation = **\$2,000,000.**
29. On July 19th, DES and DoS/HSEM personnel presented at a joint Board of Selectmen Meeting convened in Epsom
 30. On July 27th, representatives from Chichester, Epsom, Allenstown, and Pembroke met with Governor Lynch to discuss potential actions that can be taken to address damages and repetitive flood losses along the Suncook River corridor. DES and HSEM personnel were also present.
 31. DES personnel from the Dam Bureau attend several public meetings to discuss the feasibility of removing the Buck Street Dam(s) and notify the public that DES is interested in removal of the dam(s) as they have fallen into disrepair.
 32. DES creates page on agency website dedicated to the Suncook River for project partners and the general public to access. <http://des.nh.gov/organization/divisions/water/wmb/rivers/suncook-river.htm>
 33. DES facilitates a legislative briefing meeting for House and Senate members relative to the Suncook River avulsion and plans for moving forward on Capital Appropriations and HB287.
 34. DES submits an appropriation request to the Office of Senator Jeanne Shaheen for consideration during FY2011. ***The \$2,275,560 request is not included in the FY2011 Appropriations Bill***
 35. **The Central New Hampshire Regional Planning Commission (CNHRPC) is awarded a \$55,000 grant** from DoS to facilitate Community Working Teams within the Suncook River watershed that will develop and implement community derived tasks in response to the 2006 avulsion.

2011

36. DES personnel are involved in the Central New Hampshire Regional Planning Agency (CNHRPC) lead efforts to develop and implement short and long term implementation actions within the Suncook River watershed developed by officials from impacted communities along the corridor.
37. DES hosts and facilitates a second legislative briefing meeting for House Representatives and Senators.
38. February 15, 2011, Governor's proposed budget includes:
 - a. **Priority #8 – Suncook River Infrastructure Protection Project:**
 - i. **Construction of grade control structures to protect the Route 4 and Black Hall Road Bridges in the vicinity of the avulsion = \$850,000**
 - ii. **Geomorphic assessment and Fluvial Erosion Hazard zone delineation to identify properties most vulnerable to continued river channel adjustments in response to the avulsion = \$185,000**
 - b. **Priority #3 – Dam Repairs and Reconstruction (\$3,300,000)**
 - i. **Removal of the Buck Street Dam in Pembroke = \$200,000**
39. March 24, 2011 NH House of Representatives Public Works Committee recommends amending HB 25 Capital Budget to include:
 - a. **Priority #9 – Property Acquisition in the Suncook River Fluvial Erosion Hazard Zone**
 - i. **These funds will act to leverage the non-federal cost share for federal mitigation grants under the FEMA Unified Hazard Mitigation Assistance Program to allow homeowners the option for acquisition, demolition, and relocation = \$2,000,000.**
40. **DoS to provide \$450,000 in funding to DES to perform geotechnical survey and design and permitting necessary to implement Priority #8, i of Capital Budget request (Construction of grade control structures to protect the Route 4 and Black Hall Road Bridges in the vicinity of the avulsion).**

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Summary Table of Funds Expended, Requested, and Denied
Last Updated: March 28, 2011

Subject	Source	Status	Amount
2006			
DES (NHGS) baseline assessment	DES	Expended	\$8,000
DES proposal to assess alternatives for avulsion area	FEMA	Denied	\$200,000
DES request for Aquatic Ecosystem Restoration Program Grant	USACOE	Denied	\$200,000
DES and USGS request for sediment transport analyses and modeling	FEMA	Denied	\$190,240
DES and USGS request for flood recovery mapping	FEMA	Denied	\$89,840
Subject	Source	Status	Amount
2007			
Town of Epsom Section 319 request for alternatives analyses	DES/EPA	Expended	\$24,000
Town of Epsom non-federal match for alternatives analyses	Epsom	Expended	\$16,000
DES, DoS, and USGS request for sediment transport analyses and modeling	FEMA	Expended	\$275,000
DES, DoS, and USGS request for flood recovery mapping	FEMA	Expended	\$275,000
Request for 2' contour aerial photography for avulsion area	FEMA	Expended	\$134,424
Non-federal match for EMPG 2' contour aerial mapping	DES	Expended	\$134,424
Install stream gage on Suncook River in Chichester	USGS	Expended	\$13,800
Non-federal match for stream gage installation	DES	Expended	\$23,989
Subject	Source	Status	Amount
2008			
Request for 4' contour aerial photography for Suncook River mainstem from Chichester/Epsom to Merrimack River	FEMA	Expended	\$37,360
Non-federal match for EMPG 4' contour aerial mapping	DES	Expended	\$37,360
5 grant requests for acquisition of 14 homes in Allenstown	FEMA	Awarded	\$2,000,000
Subject	Source	Status	Amount
2009			
Request for State Conservation grant for floodplain planting component of Alternative #3 (VHB study)	NHSCC	Awarded	\$100,000
Withdrawal of NHSCC grant to Epsom due to lack of matching funds	NHSCC	Withdrawn	\$100,000
Request for Pre-Disaster Mitigation grant to implement Alternative #3 from VHB study	FEMA	Denied	\$3,800,000
Request for NPS stimulus program grant to implement Alternative #3 from VHB study denied due to lack of matching funds from Town of Epsom	ARRA / CWSRF	Denied	\$3,750,000
Request to Office of Senator Jeanne Shaheen for funding appropriation in FY2010 to implement Alternative #3 from VHB study	U.S. Federal Budget	Denied	\$3,750,000
Request to Office of Representative Hodes for funding appropriation in FY2010 to implement Alternative #3 from VHB study	U.S. Federal Budget	Denied	\$3,750,000
Subject	Source	Status	Amount
2010			
Senate Bill 10 requesting state match for \$2,000,000 FEMA property acquisition grants in Allenstown	State of NH	Denied	\$650,000

Request for Pre-Disaster Mitigation grant to implement Alternative #3 from VHB study	FEMA	Denied	\$2,400,000
Capital Improvement Project Request – Priority #3: Dam Repairs (Buck Street Dam Removal)	State of NH	Awarded	\$200,000
Capital Improvement Project Request – Priority #8: Suncook River Infrastructure Protection	State of NH	Awarded	\$850,000
Capital Improvement Project Request – Priority #8: Fluvial Erosion Hazard Zone Delineation	State of NH	Awarded	\$185,000
Request to Office of Senator Jeanne Shaheen for funding appropriation in FY2011 to implement amended Alternative #3 from VHB study	U.S. Federal Budget	Denied	\$2,275,560
CNHRPC Coordination/Facilitation for Implementation of Community Working Team Tasks within Suncook River Watershed	DOS	Awarded	\$55,000
Subject	Source	Status	Amount
2011			
Capital Improvement Project Request – Priority #9: Suncook River Property Acquisition and Hazard Mitigation	State of NH	Awarded	\$2,000,000
Geotechnical Survey, Design and Permitting for Suncook River Infrastructure Protection	DOS	Awarded	\$450,000
Total Secured and/or Expended To Date			\$6,719,357
Total Pending			\$0
Total Denied, Declined, or Withdrawn			\$21,155,640

Subject	Source	Status	Hours	Amount
Documented Agency Staff Hours (Couture, Landry, Gallagher) - 2006 to present*	DES	Expended	1,835.25	\$62,707.50
*Does not include DES Geological Survey, DoS, and other DES personnel				